

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015608**Date Inspected:** 12-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Yang Bai Qiang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

Deck Panel 13BE-DP3088(PL3184A/B)-001

QA inspector performed conventional Ultrasonic Testing (UT) Inspection of approximately 10% for Lack of Penetration (LOP) on deck panel weld areas previously tested and accepted by ZPMC Quality Control personnel. This QA inspector generated UT report for this date. The members are identified as Deck Panel. The weld designations reviewed are as follows.

DP3088-001-001~010, 171~180

This Quality Assurance (QA) Inspector observed the following work in progress:

BAY 04, DECK PANEL REPAIR

13BW-DP3134-001

During random in process inspection this QA inspector observed that ZPMC personnel were performing excavation on PAUT repair locations. ZPMC QC is identified as Mr. Zhang Hai Tao. The repair excavation details

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are as follows.

Weld: 001; Y location: 1150, 1750
Weld: 002; Y location: 1150
Weld: 003; Y location: 550, 4750
Weld: 004; Y location: 1750
Weld: 005; Y location: 50, 2350
Weld: 006; Y location: 1150, 1750, 3550, 4150, 4750
Weld: 007; Y location: 1150, 1750, 2350, 3550
Weld: 008; Y location: 550
Weld: 009; Y location: 50, 4150
Weld: 010; Y location: 50, 4750

13BW-DP3135-001

During random in process inspection this QA inspector observed that ZPMC personnel were performing repair welding on the Partial Joint Penetration (PJP) weld joints of deck panel 13BW-DP3135-001. Welder is identified as 203805. ZPMC QC is identified as Mr. Zhang Hai Tao. The welding variables recorded by QC appeared to comply with WPS-345-FCAW-2G(2F)-FCM-Repair. The repair area details are as follows.

Weld: 002; Y location: 3550
Weld: 005; Y location: 4550
Weld: 008; Y location: 4150
Weld: 010; Y location: 4550
Weld: 011; Y location: 3550, 4550
Weld: 015; Y location: 4550
Weld: 016; Y location: 650

13AW-DP3121-001

This QA inspector observed that ZPMC NDT personnels were performing 15% coverage and repair area Magnetic Particle Testing (MT) on the weld joint of above mentioned deck panel.

During Quality Assurance random in-process visual inspection of the lift 13 deck panels, this Quality Assurance Inspector (QA) discovered the following issue:

-ZPMC personnel performing Flux Cored Arc Welding (FCAW) on the U-rib to deck panel weld repairs with electrode wire that has been exposed for more than 70 hours.

-Approximately five tack weld locations were found welded with the over exposed electrode.

-The affected weld designations and respective Y locations are as follows:

DP3145-001-004, Y location = 50mm
DP3145-001-005, Y location = 50mm
DP3145-001-008, Y location = 650mm
DP3145-001-010, Y location = 50mm
DP3145-001-286, Y location = 1250mm

-This weld is Partial Joint Penetration (PJP) weld joining the U-rib to the deck plate.

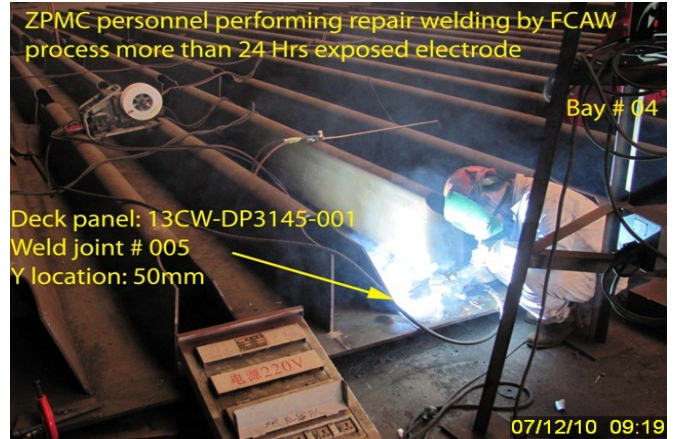
-This weld is designated as Seismic Performance Critical Member (SPCM).

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-This component is located in OBG fabrication bay 4.
For further information, please see the attached pictures below.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Umesh

Quality Assurance Inspector

Reviewed By: Carreon,Albert

QA Reviewer